

Date: Wed, 6 Jan 93 02:06:08 PST  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #25  
To: Info-Hams

Info-Hams Digest                      Wed, 6 Jan 93                      Volume 93 : Issue    25

Today's Topics:

        "TCI" Commercial/Military Antennas  
        [ANS] Re: [FWD] End fed 1/4 wave 80 meter antenna  
                Aluminum tubes in Bay Area.  
        Daily Solar Geophysical Data Broadcast for 05 January  
                DJ580 mod  
                Hornet TB-1000 Tribander traps  
Intermod vs. Spurious Signals (Re: Yaesu FT530 HT first impressions)  
        NASA Project Dante & Compressed Video? (2 msgs)  
                Private vs. Public - wars ....  
                Wanted: Kenwood TH-48 mod  
                Yaesu FT-7400 - Availability ?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.  
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Date: 6 Jan 93 06:34:05 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: "TCI" Commercial/Military Antennas  
To: info-hams@ucsd.edu

I noticed an ad in the Jane's Book of Military Communications of LPDA  
fixed and rotatable antennas for the 2-30 Mhz range.  
Some of the fixed position antennas claim to exhibit a gain of  
> 18 dbi ! Their construction doesn't seem too complicated  
but according to the illustrations at least, they do look like they require  
considerable acreage and 3 support towers.  
Are these or similar designs available in any literature ?

A ham can not help but daydream about these beautiful antennas - they take up less room than a rhombic and offer equal or better gain in a single direction.

-Rich  
WB2JBS

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Date: Wed, 6 Jan 1993 03:51:35 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!stanford.edu!kronos.arc.nasa.gov!  
butch!netcomsv!bongo!julian@network.UCSD.EDU  
Subject: [ANS] Re: [FWD] End fed 1/4 wave 80 meter antenna  
To: info-hams@ucsd.edu

In article <1993Jan05.194455.16996@eng.umd.edu> chuck@eng.umd.edu (Chuck Harris - WA3UQV) writes:

>In article <9301032036.AA29051@tecnet1.jcte.jcs.mil>

jdelancy@tecnet1.jcte.jcs.mil writes:

>>Ok. But you forget one thing, I never said use copper sulphate  
>>or other chemicals, I said rock salt.

OK, here is another possible chemical. Epsom Salts (Magnesium Sulphate). If it gets into your well water, you will notice the effects and they will tend to make the septic tank overflow.

I reccommend Epsom Salts if you really want to flush out the DX.

--  
Julian Macassey at bongo. julian@bongo.tele.com Voice: (213) 653-4495  
Paper Mail: 742 1/2 North Hayworth Avenue, Hollywood, California 90046-7142

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Date: 6 Jan 93 04:14:11 GMT  
From: olivea!apple!kchen@ames.arpa  
Subject: Aluminum tubes in Bay Area.  
To: info-hams@ucsd.edu

nat@kpc.com (Natarajan Gurumoorthy) writes:

> Could someone suggest some other  
> source for the tubing in the Bay area.

Try Allen Steel (yeah, yeah, I know it says steel, but they have aluminium, copper, brass, and other stuff too) just off US 101 around Belmont/San Carlos (Bay side of the freeway). A surplus place. Bring your own hack saw. They will also cut for you for a small fee.

73,

Kok Chen, AA6TY  
Apple Computer, Inc.

kchen@apple.com

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Date: 6 Jan 93 08:55:36 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Daily Solar Geophysical Data Broadcast for 05 January  
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 005, 01/05/93  
10.7 FLUX=124.9 90-AVG=139 SSN=099 BKI=3423 3323 BAI=014  
BGND-XRAY=B2.5 FLU1=4.2E+06 FLU10=9.7E+03 PKI=3433 3223 PAI=013  
BOU-DEV=021,042,017,038,029,020,018,028 DEV-AVG=026 NT SWF=00:000  
XRAY-MAX= C1.3 @ 1508UT XRAY-MIN= B2.3 @ 1737UT XRAY-AVG= B3.2  
NEUTN-MAX= +002% @ 1035UT NEUTN-MIN= -002% @ 1800UT NEUTN-AVG= -0.2%  
PCA-MAX= +0.2DB @ 2000UT PCA-MIN= -0.4DB @ 0925UT PCA-AVG= -0.0DB  
BOUTF-MAX=55430NT @ 0331UT BOUTF-MIN=55397NT @ 1925UT BOUTF-AVG=55414NT  
GOES7-MAX=P:+110NT@ 2114UT GOES7-MIN=N:+000NT@ 1024UT G7-AVG=+077,+030,+010  
GOES6-MAX=P:+130NT@ 1914UT GOES6-MIN=E:-013NT@ 2302UT G6-AVG=+096,-002,+038  
FLUXFCST=STD:125,130,135;SESC:125,130,135 BAI/PAI-FCST=015,010,010/015,012,012  
KFCST=3344 3332 2333 3322 27DAY-AP=020,015 27DAY-KP=3334 4344 3233 4332  
WARNINGS=  
ALERTS=  
!!END-DATA!!

-----  
Date: Tue, 5 Jan 1993 20:56:06 GMT  
From: mcsun!fuug!kirk!squirppi@uunet.uu.net  
Subject: DJ580 mod  
To: info-hams@ucsd.edu

UD116446@vm1.nodak.edu writes:

: I know I saw the DJ580 mod on here earlier what was it again?

REPOST WARNING - REPOST WARNING

This modification widens the listening area to 130 - 179.995MHz and to  
400 - 469.995MHz. It does not allow one to transmit out-of-band but says  
only "Off" :-)

As you might already know, software altering for the radio is done as follows:  
Use FL/PL lock, enter "#" and then the 3-digit number. Just like the documents

tell how the cross-band repeater is put in action.

I received this information from my dealer, who sent the mod for the 560 model  
- but it works just fine in my 580E. Fine thing, still have my guarantee :-)  
--

Trying to connect my 3.14159Tb/s 3-beam overspace link to Vega, Lyrae...

Connect 3141592653590/V92Ter/LapLAND/Mnp666/Vryfast

squirppi@krk.fi  
OH2KEA (KP 20 LF)

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Date: 6 Jan 93 02:45:00 GMT  
From: ub!acsu.buffalo.edu!ubvmsb.cc.buffalo.edu!v111qheg@RUTGERS.EDU  
Subject: Hornet TB-1000 Tribander traps  
To: info-hams@ucsd.edu

Does anyone on the net know how the traps on the Hornet TB-1000 yagi  
can be disassembled? The traps are of newer design (13" long, 1.5" diam) and  
are not secured with hardware. Thanks for any information. Hpe c u in NAQP,  
es 73, de Peter KB2NMV

-----  
Date: 6 Jan 93 02:51:36 GMT  
From: sdd.hp.com!spool.mu.edu!olivea!gossip.pyramid.com!pyramid!infmtx!moose!  
randall@network.UCSD.EDU  
Subject: Intermod vs. Spurious Signals (Re: Yaesu FT530 HT first impressions)  
To: info-hams@ucsd.edu

acm139@ccs.northeastern.edu (Scott Ehrlich) writes:

> The 70cm transmit side is HEAVILY susceptible (sp?) to intermod.  
> This is the right side of the display. It can also act as receive for  
> 2m, which is also susceptible to the intermod. It is not safe to say  
> 70cm alone is the problem, but rather 70cm transmit/2m receive (the  
> VFO on the right side of the display) is not tight enough for intermod.

I believe you mean "spurious signals", not "intermod". Intermod  
happens when signals from two or more stations at different  
frequencies mix to form another signal on another frequency, which is  
then detected by your receiver. "Spurious signals" are signals  
that don't belong where the receiver is detecting them. (e.g.  
police signals appearing at 145 MHz) Intermod is one, but not the  
only, cause of spurious signals.

Spurious signals are a problem on all reasonably priced handheld DC-to-daylight receivers I've ever used, including handheld scanners, HTs, and multiband radios. When you get something, you give up something. If you want the extended receive, you get spurious signals along with it. Some receivers are worse than others though.

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=====
Randall Rhea                                Informix Software, Inc.
Project Manager, MIS Sales/Marketing Systems    uunet!pyramid!infmtx!randall
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Date: Wed, 6 Jan 1993 02:13:54 GMT  
From: usc!sol.ctr.columbia.edu!news.cs.columbia.edu!popovich@network.UCSD.EDU  
Subject: NASA Project Dante & Compressed Video?  
To: info-hams@ucsd.edu

When I saw people asking questions about Dante on this newsgroup, I decided to ask a friend of mine on the project, who incidentally is also a ham, basically those questions directly. I got a quick response from him, and a promise of more to come once the rest of the team is back home in Pittsburgh; they should be in transit now. BTW, I'm sorry to break with rec.radio.amateur.misc tradition by posting facts instead of flamage :-). Now back to our regularly scheduled open vs. closed repeater flame war...

-Steve, WB3I

[Begin forwarded message]

You can post this from me with the note that I will have more info when the team members return - I will answer direct questions as well but the response will be a little slow as I have other work and I shall have to track down some info - I am software person afterall.

The decision to use an optic fiber was made early on because of the amount of information being sent (ethernet, several video camera, and several serial i/o lines - I shall get a full list later - all on a single mode fiber using a special in house designed board). The original set up had Dante's fiber part of the power cable, however this failed early on due to a bad cable - the fiber didn't work under cable load! Getting a new tether with power and fiber would have taken too long - this project was only for this year. To solve this we made use of another fiber which was going to relay information from a second autonomous robot which was built named Virgil who was going to transport Dante to the rim. Virgil fell out of the picture for other

mainly transportation reasons and was replaced with a simple wheeled cart named Geryon.

This "yellow" fiber was then hand wrapped and passively paid out by Dante.

The radio was not used was due to a combination of factors, primarily driving us was time, the amount of information, the amount of available power on the Dante, the fact that we were not line of sight and the desire to only put computers on Dante that we were used to programming (again the time factor) and could withstand -40C.

The video for nasa select was with a compression board in one sun tcp/ip via satellite TDRSS and decompression on the other end. This required encoding and decoding a clock which we built a board for but the goddard folk provided us with a clock off of the satellite links. I will grab more detailed info on that as well.

Chris Fedor (KB8ETE)  
fedor@cs.cmu.edu (Lead Software for the Erebus Project)  
[End forwarded message]

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Date: Wed, 6 Jan 1993 06:20:05 GMT  
From: usc!wupost!csus.edu!netcom.com!nagle@network.UCSD.EDU  
Subject: NASA Project Dante & Compressed Video?  
To: info-hams@ucsd.edu

jeffj@cbnewsm.cb.att.com (jeffrey.n.jones) writes:  
>In article <01GT47Y1CA0G8WVYPA@TSU.BITNET> PORTER04%TSU.BITNET@cunym.cuny.edu  
writes:  
>>I am told that use of  
>>DOMSATS in equatorial orbit is not possible, maybe INMARSAT? It all  
>>looked very interesting>

See recent messages in comp.robotics for further info.

John Nagle

-----  
Date: 6 Jan 93 09:49:01 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Private vs. Public - wars ....  
To: info-hams@ucsd.edu

Folks,

As an unbiased (?) observer from many thousands of miles away from the epicenter of all this stuff, I have tried to keep out of it (and, believe me, I tried ...). HOWEVER ....

> ...but, since there are hundreds of lanes, changing lanes to one that doesn't  
> have someone's Porsche in it is not only possible but easy.

Surely this should read "... at times, changing lanes to one that doesn't have someone's Porsche in it ...."

>>Blocking off PUBLIC property for one group/user's PRIVATE use without  
>>compensation to the public is wrong.

>Fortunately, the FCC disagrees with you.

Doesn't mean that they're RIGHT, though, does it?

>>All the more reason not to park your car in the lane blocking it. I don't  
>>care how many lanes there are, when they're all needed people have to  
>>share. When there are unused lanes available then it isn't a problem,  
>>but when demand is high the rules have to change. No more private use  
>>of public property.

>Sorry, but this doesn't wash either. You're demanding that Jim change his  
>Porsche into a public bus, just like all the public busses in all the other  
>lanes. Are you going to pay for it? If not, then what gives you the right to  
>take his property?

My impression was not that anyone was being asked to change or give up anything. I have the view that the concept of "sharing" was what was being introduced here. I don't recall anything that said anyone was going to take anyone else's property. Where'd you get THAT idea from?

>Some repeaters have traps for the unwary. Linked repeater systems, for  
>example, are extremely confusing to the uninitiated, as well as being  
>expensive to set up and maintain. Others have sophisticated control systems  
>driving all manner of accessories; a careless touch tone at the wrong time  
>can bring the whole thing crashing down on your head. You would have all such  
>repeaters open to every ham. The net effect of that would be lowering all  
>repeaters to the lowest kerchunk-box common denominator. What ever happened to  
>experimentation?

Is this a suggestion that members of clubs which run private repeaters never pressed a wrong button? I have a view which states that if the result of an action could "... bring the whole thing crashing down on your head ...", that such a device ought NOT to be inflicted on the unwary. Experimentation? Sure. But didn't experiments (in amateur bands ought to be confined to low-use frequencies? Since what you've alluded to are experiments with logic and

control circuitry, surely the RF stages are consequential? Maybe these experiment should be run "offline"; perhaps under simulation on a PC? Better yet, what about 220MHz or 1300MHz? Maybe they're ideal bands for these kind of experiments? You seem very defensive of any ham's right to experiment, whilst saying "Ah yes, but \*I\* wanna choose \_WHO\_ will experiment!"

>You're demanding that Jim hand the keys to his Porsche to anyone who comes  
>along and asks. Are you prepared to buy the machine from him? If not, then ho  
>dare you tell him how to run it?

Nope. That isn't what was suggested. Reread, and you'll see that it has been suggested that Jim be prepared to SHARE a frequency pair when that pair is not in use. Are you telling me that if I see someone driving a car in an unreasonable manner, I'd better be prepared to buy it from him before I either start a discussion on the subject or report him to the police? Unreal.

>Letting someone who doesn't like me prevent me from using my repeater -  
>something that has happened regularly in the Houston area - is silly and  
>wrong, but it's exactly what you're advocating: by your standards, someone ho  
>doesn't like Jim merely needs to appear on his repeater, thus forcing him to  
>either let the guy use it or deprive himself of it.

Again, I don't recall that anyone was trying to do anything about preventing someone from using a repeater. However, I DO recall that someone was trying to prevent some else from sharing some frequency pairs ....

73 - Iain  
G8SJP/GØRDI/C3ØDLA/AA2still\_waiting

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Date: 6 Jan 1993 08:11:21 GMT  
From: munnari.oz.au!spool.mu.edu!yale.edu!ira.uka.de!uka!iraul1.ira.uka.de!  
tremmel@network.UCSD.EDU  
Subject: Wanted: Kenwood TH-48 mod  
To: info-hams@ucsd.edu

Hi!  
Does anybody have mods oder 'Software-Tricks' for  
the Kenwood TH-48?

Tnx!

73, Wolfgang DH2PAF

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Date: 6 Jan 93 06:38:11 GMT



From: news-mail-gateway@ucsd.edu  
Subject: Yaesu FT-7400 - Availability ?  
To: info-hams@ucsd.edu

Anyone on the net know of a source for the Yaesu FT-7400 ?  
(This is the UHF version of the popular FT-2400 50W mobile xcvr).  
It's included in Yeasu's complete amateur 'line' picture in the  
back of QST but no one seems to carry this item in stock.  
-Richard  
WB2JBS

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Date: 6 Jan 93 02:35:40 GMT  
From: swrinde!cs.utexas.edu!qt.cs.utexas.edu!yale.edu!spool.mu.edu!hri.com!  
noc.near.net!transfer.stratus.com!bigbootay.sw.stratus.com!  
leadfoot@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <8323@lib.tmc.edu>, <1icr4sINNl08@transfer.stratus.com>,  
<1iddd6INNhf1@tamsun.tamu.edu>igboo  
Subject : Re: Closed repeaters

In article <1iddd6INNhf1@tamsun.tamu.edu>, willis@cs.tamu.edu (Willis Marti)  
writes:

|> Two points, both of which I believe Mr. Curtis has missed.

OK, so far so good.

|> One, anyone who thinks 'public' means open access ignores case law and  
|> fact, whether it's land, freeways, military bases or whatever. After all,  
|> the FCC has already said (for example) you can't transmit 1kw on 104.9Mhz  
|> (readers outside the US not already ignoring this thread, please substitute  
|> your own example}. The highway analogies are fatally flawed; try just  
|> talking about amateur radio.

By public I meant like the park. Open for ALL of the public to use.  
Ham radio frequencies are open to everyone who can pass the test. You  
will not find age, sex, race, income level, or any of that stuff on  
the form.

|> Two, while Part 97 & a license gives one a basic right to transmit, there  
|> are restrictions. The rules say you may not jam a transmission; they also  
|> admonish us to use good operating practice. Anyone want to argue that  
|> operating simplex on a (known) repeater input frequency is good practice?  
|> Or sending various DTMF tones 'just to see what happens'? Or trying to find  
|> the PL or control tones for a 'closed' system you've been asked not to  
|> use? What one *can* do is always more than what one *should* do.

Is having a 440 closed repeater which only gets used four minutes a week good amateur operation? If simplex and open pairs are everywhere MAYBE, but with only TWO simplex frequencies in the local band plan and NO available pairs it SURE ISN'T. This machine exists to stroke someones ego and to allow four or five people to have a quiet intercom. That pair could be shared with ten other machines just like it using PL/CTCSS and no one would even notice. People using simplex freqs do it all the time, I know I do. But getting them to go along with this is impossible. All you get is "Why should I? The coordinator gave me the pair. It's my frequency get lost."

You aren't jamming the repeater if it isn't TXing. The machine can be quiet for days, but if they hear anything on the frequency they'll go nuts. All you'll hear after that is "This is my repeater and my frequency stay off it." This isn't making good use of the available frequencies. I don't care what they say, all they own is the repeater hardware, not the frequency.

If you aren't actively using the frequency get out of the way. If you don't want someone else's signal repeated turn the thing off. Not using the frequency and then screaming when someone, who has equal right to, does is a joke. There isn't room for that kind of operation on the VHF/440 bands anymore. Stop crying and start sharing, the world is getting crowded.

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Date: Wed, 6 Jan 1993 00:38:21 GMT  
From: UB.com!pippen.ub.com!dwarner@uunet.uu.net  
To: info-hams@ucsd.edu

References <1993Jan5.085312.22208@ringer.cs.utsa.edu>,  
<1993Jan5.161735.17871@ke4zv.uucp>, <1icp0aINNmiv@transfer.stratus.com>8  
Subject : Re: QSL cards from SWLers (was Re: Ham transmissions-a hypothetical situation)

In article <1icp0aINNmiv@transfer.stratus.com> fms@sw.stratus.com (Faith Senie) writes:

>In article <1993Jan5.161735.17871@ke4zv.uucp>, gary@ke4zv.uucp (Gary Coffman) writes:

>> In article <1993Jan5.085312.22208@ringer.cs.utsa.edu> sbooth@lonestar.utsa.edu  
>>(Simon E. Booth) writes:

>>

>> [...]

>>

[more....]

>What does one reply to a SWL card? I got one recently, and didn't realize  
>that some sort of reply was appreciated. Just a note saying thanks? or is  
>there something more that should be done? I'd hate to leave the guy hanging  
>if he's expecting some sort of reply...

IMHO what most SWL's are looking for is a return QSL card or just a note  
with your callsign, transmitter type/location/power, etc., and confirmation  
of the Date/Time of the QSO referenced on the SWL card. SWL's have  
contests/collections, too. Most reception reports are to Non-Amateurs (   
Radio Moscow, etc.), but confirmation is REALLY appreciated.

-----  
Dave Warner (No DoD#)  
dwarner@ub-gate.UB.com

Opinions mine alone, unless  
otherwise stated.

"Gallows, n. A stage for the performance of miracle plays, in which the  
leading actor is translated to heaven. In this country the gallows is  
chiefly remarkable for the number of persons who escape it". - A. Bierce  
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Date: Wed, 6 Jan 1993 09:32:18 GMT  
From: qualcom.qualcomm.com!servo.qualcomm.com!karn@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <1993Jan2.184109.13079@mnemosyne.cs.du.edu>,  
<eNTRwB1w164w@ham.almanac.bc.ca>, <1993Jan4.144520.19597@ultb.isc.rit.edu>  
Subject : Re: Who do repeater coordinators represent?

In article <1993Jan4.144520.19597@ultb.isc.rit.edu> cep4478@ultb.isc.rit.edu (C.E.  
Piggott ) writes:

>Statements like "I heard packet works better through a repeater" concern  
>me (not that you said that - I've just heard it before). One of the  
>potential strengths of packet is as a distributed, redundant system.  
>Adding a repeater greatly reduces collisions, but at a significant  
>expense:

>  
> - the repeater is a single point-of-failure, and  
> many people will not be able to or know  
> how to operate without it when the repeater  
> dies  
> - repeater coverage rarely stays localized. After  
> a while, a better antenna, more power, etc.

> and you wind up with a wide-coverage packet  
> repeater that is jammed up.

Deja vu warning...

I happen to agree with this. Using repeaters to reduce collisions  
\*does\* involve a significant opportunity cost. Unfortunately, the  
alternative techniques to "do it right" are still not yet known in the  
amateur service. These include:

1. Spread spectrum, which creates a channel that degrades more gracefully with multiple simultaneous transmitters than does a narrowband channel.
2. Strong forward error correction coding. By decreasing the required signal-to-noise(interference) ratio, this enhances the ability of spread spectrum to tolerate multiple simultaneous transmitters on a channel. And by reducing the necessary transmitter power to sustain a link, it also reduces interference to other receivers.
3. Automatic transmitter power control so you never use more power than is actually necessary to reach a particular node.
4. Automatic routing algorithms with link metrics based on power/interference estimates so that paths are chosen on the basis of their minimum impact on overall system capacity. I.e., you would choose a path of many closely spaced nodes over a few widely spaced nodes because the much lower power required at each hop would more than make up for the increased number of hops.

Phil

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Date: 6 Jan 93 00:17:39 GMT  
From: usc!wupost!emory!logicse!henson!news.u.washington.edu!serval!  
wsuvm1.csc.wsu.edu!WEBBG@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <9301051454.AA02438@tix.timeplex.com>,  
<1ic7vjINNjg9@rave.larc.nasa.gov>, <rrgd50-050193130047@222.5.80.3>  
Subject : Re: 1200Mhz is not a microwave band!

In article <rrgd50-050193130047@222.5.80.3>  
rrgd50@email.sps.mot.com (Chris Terwilliger) writes:

>  
>by the way...has anyone ever used tried to modulate old oven parts???

>Seems like a good project for someone with an oven they don't use any  
>more...  
>

I've thought about doing this. Anyone know what this would involve?

+-----+-----+	
Geoffrey Webb N7ZRR	Internet: webbg@wsuvm1.csc.wsu.edu
Systems Analyst/Programmer II	Bitnet: webbg@wsuvm1
Washington State University	Ampnet: n7zrr@AA7GV.##wa.ampr
Pullman WA 99163	Phone: (509) 335-4213
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End of Info-Hams Digest V93 #25  
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